

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

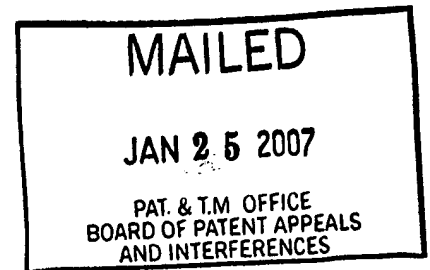
UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte WILLIAM HENRY MENGEL

Appeal No. 2006-3132
Application No. 09/743,997

ON BRIEF



Before SAADAT, MACDONALD, and HOMERE, Administrative Patent Judges.
MACDONALD, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-3 and 5-9. Claim 4 has been cancelled.

THE INVENTION

The disclosed invention pertains to a method of use for on-screen display (OSD) for supplying control and auxiliary information to external devices.

Representative claims 1 and 9 are reproduced as follows:

1. A method of receiving information usually included in a blanking interval of an analog video signal the method comprising:

- receiving an analog video signal including information usually included in a blanking interval formatted as OSD data;
- detecting the information formatted as OSD data;
- extracting the detected information from the analog signal; and
- processing the information for producing a control signal.

9. A method of formatting information usually included in a blanking interval of an analog video signal, said method comprising the steps of:

- receiving a digital video signal;
- providing an information signal usually included in a blanking interval of an analog video signal to an OSD generator;
- formatting the information signal as OSD data;

- inserting the OSD data into the video signal;
- converting the digital video signal to an analog video signal; and
- providing the analog signal including the information signal formatted as OSD data to an external device.

THE REFERENCES

The examiner relies on the following reference:

Knox et al. (Knox)	6,480,238	Nov. 12, 2002
		(PCT filed: Oct. 16, 1996)
		(§ 371 (c)(1)(2)(4) date: Mar. 23, 1999)

The examiner relies on fig. 1 of the following reference as support for the taking of “Official Notice” (claim 9):

Ryu	6,226,047	May 1, 2001
		(filed May 6, 1998)

THE REJECTIONS

The following rejections are on appeal before us:

1. Claims 1-3 and 5-8 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Knox.

2. Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over the teachings of Knox in view of the examiner's taking of Official Notice.

Rather than repeat the arguments of appellant or the examiner, we make reference to the briefs and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer. Only those arguments actually made by appellant have been considered in this decision. Arguments which appellant could have made but chose not to make in the briefs have not been considered and are deemed to be waived.

See 37 C.F.R. § 41.37(c)(1)(vii)(2004). See also In re Watts, 354 F.3d 1362, 1368, 69 USPQ2d 1453, 1458 (Fed. Cir. 2004).

It is our view, after consideration of the record before us, that the evidence relied upon by the examiner supports the examiner's rejections of claims 1-3 and 5-9. Accordingly, we affirm.

ANTICIPATION REJECTION

In rejecting claims under 35 U.S.C. §102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. Perricone v. Medicis Pharmaceutical Corp., 432 F.3d 1368, 1375-76, 77 USPQ2d 1321, 1325-26 (Fed. Cir. 2005), citing Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 1565, 24 USPQ2d 1321, 1326 (Fed. Cir. 1992). To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can Co. v. Monsanto Co., 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." In re Robertson, 169

F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (internal citations omitted). To anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim. Karsten Mfg. Corp. v. Cleveland Golf Co., 242 F.3d 1376, 1383, 58 USPQ2d 1286, 1291 (Fed. Cir. 2001); Scripps Clinic & Research Foundation v. Genentech, Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991). Anticipation of a patent claim requires a finding that the claim at issue “reads on” a prior art reference. Atlas Powder Co. v. IRECO, Inc., 190 F.3d 1342, 1346, 51 USPQ2d 1943, 1945 (Fed Cir. 1999) (“In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless of whether it also covers subject matter not in the prior art.”) (internal citations omitted).

Claims 1-3 and 5-8

We consider the examiner’s rejection of claims 1-3 and 5-8 as being anticipated by Knox. Since appellant’s arguments with respect to this rejection have treated these claims as a single group which stand or fall together, we will consider independent claim 1 as the representative claim for this rejection. See 37 C.F.R. § 41.37(c)(1)(vii)(2004).

Appellant argues that Knox does not disclose On-Screen-Display (OSD) data, such as closed captioning, extended data service, and vertical interval test signals, typically delivered in the blanking intervals of an analog video signal [brief, page 13]. Appellant acknowledges that Knox describes a method and apparatus for generating an OSD message by constructing an OSD bitstream defining a single field of OSD data [*id.*]. However, appellant asserts that Knox neither discloses nor suggests “receiving an analog video signal including information usually included in a blanking interval formatted as OSD data” and the recited steps of “detecting ...,” “extracting ...,” and “processing the information for producing a control signal,” as required by the language of claim 1 [*id.*]. Appellant further argues that “there is no 35 U.S.C. § 112 enabling disclosure contained within Knox that anticipates the present invention as claimed in independent claim 1” [brief, page 14].

The examiner disagrees [answer, page 9]. The examiner notes that appellant acknowledges in the brief that Knox’s OSD bit map may contain information relating to close captioning and channel logos that are transmitted from a cable television, a video disk, and the like (col. 3, lines 46-54) [answer, page 9; see also brief, page 12]. The examiner argues that the display device must first receive the data or image (or information such as the OSD), detect it, extract the OSD from the

image signal, and then process the received (analog) signal and display the OSD data in a designated location on the screen of the display device [answer, page 10]. The examiner points to Knox's fig. 3 that shows a displayed frame (background) and the OSD1-352 and OSD2-354 signals [id.]. Therefore, the examiner concludes that detection and extraction of the OSD data is inherently performed by Knox's display device 190 [id.].

In the reply brief, appellant asserts that the OSD header the examiner relies upon as defining a control function is not encoded into the analog signal produced by the digital-to-analog converter [reply brief, page 6]. Rather, appellant asserts that the produced analog signal is merely a blended image of the picture data and OSD data (Column 4, lines 45-50) [id.]. In particular, appellant notes that in an analog signal control data formatted as OSD replaces picture data, unlike in a digital signal where control data formatted as OSD accompanies the picture data [id.]. Thus, appellant asserts that Knox is not concerned with control data (usually included in a blanking interval) encoded as OSD data within an analog signal [id.]. Therefore, appellant concludes that Knox neither discloses nor suggests "receiving an analog video signal including information usually included in a blanking interval formatted as OSD data," as recited in claim 1 [id.].

We begin by construing the meaning and scope of the claim language: “information usually included in a blanking interval” [claim 1, emphasis added]. “During patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification.” In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). The broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach. In re Cortright, 165 F.3d 1353, 1358, 49 USPQ2d 1464, 1467 (Fed. Cir. 1999).

In the instant case, when we look to the specification for context, we note that appellant has provided several examples of types of information that may be inserted into the vertical blanking interval (e.g., closed captioning information).

See instant specification, page 1, lines 13-16:

2. Description of the Related Art

In analog television systems, certain auxiliary information such as closed captioning, extended data service (XDS), vertical interval test signal (VITS), and the like, is included in an analog signal in the form of data inserted into the vertical blanking interval (VBI) [emphasis added].

After carefully reviewing the Knox reference, we note that Knox explicitly discloses information relating to close captioning at col. 3, lines 52-54:

Alternatively, the OSD bit map may contain information relating to Closed Captioning and channel logos that are transmitted from a cable television, a video disk and the like [emphasis added].

Therefore, when we properly construe the language of the claim in accordance with the broadest reasonable interpretation consistent with the specification, we find that Knox discloses closed captioning information that corresponds to the type of “information usually included in a blanking interval,” as claimed [claim 1, emphasis added]. Furthermore, we find this interpretation to be fully consistent with the interpretation that those skilled in the art would have reached because appellant has acknowledged within the “Description of the Related Art” section of the specification that closed captioning information may be inserted into the vertical blanking interval [instant specification col. 3, lines 52-54].

After carefully reviewing figs. 1 and 3 and the corresponding supporting sections of Knox, we acknowledge that the only analog video signal shown in fig. 1 occurs at the output of Digital-to-Analog Converter DAC 185 [fig. 1]. We note that the DAC 185 analog video output signal is further provided as an analog video input to DISPLAY 190 [fig. 1, see also col. 4, lines 60-63]. However, we note that OSD data is included as part of the analog video signal output of DAC 185, as the OSD data was previously mixed (in digital form) with the decoded (digital) video

signal by (digital) MIXER 170 [fig. 1, see also col. 4, lines 46-63]. We further note that Knox explicitly discloses that “the OSD bit map may contain information relating to Closed Captioning ...” [col. 3, lines 52 and 53, emphasis added]. Thus, we find that Knox discloses closed captioning information formatted as OSD data that replaces the picture data in the analog video output of DAC 185.

Therefore, we find that Knox discloses the step of “receiving an analog video signal [i.e., at the input of DISPLAY 190] including information [i.e., closed captioning information now in analog form] usually included in a blanking interval formatted as OSD data [i.e., closed captioning information formerly included in an OSD bit map, now presented in analog form],” as claimed [claim 1]. Thus, we find that the broad language of the claim merely requires a type of information that is usually included in a blanking interval formatted as OSD data (e.g., closed captioning data).

We further agree with the examiner that DISPLAY 190 inherently performs the recited steps of “detecting the information formatted as OSD data” and “extracting the detected information from the analog signal” [claim 1]. In particular, we find that the analog video signal input to DISPLAY 190 must inherently be detected to be displayed. Likewise, we find that the video (pixel) information contained within the analog video signal must inherently be extracted

to be displayed as individual pixels by DISPLAY 190. Thus, while we agree with appellant that OSD data replaces picture data in an analog video signal (see reply brief, page 6, ¶2), we nevertheless find that the language of the claim broadly but reasonably reads on the Knox reference in the manner asserted by the examiner.

With respect to appellant's argument that Knox fails to disclose "processing the information for producing a control signal," we note that Knox explicitly discloses the OSD header contains information [i.e., "information for producing a control signal"] concerning the locations of the top and bottom OSD field bit maps, palette data, and various display modes involving OSD resolution, color, and compression [col. 4, lines 2-6]. In particular, we note again that Knox explicitly discloses: "the OSD bit map may contain information relating to Closed Captioning ..." [col. 3, lines 52 and 53, emphasis added]. We acknowledge that Knox's OSD header information is presented in digital form in memory 140 [col. 4, lines 2]. However, we find that the information defined by the OSD header (i.e., as used to produce video control signals) is inherently (i.e., necessarily) represented within the analog video signal input to DISPLAY 190 as displayed OSD locations, and as various display modes involving OSD resolution and color.

In the alternative, if the control signals resulting from the OSD header information are determined to exist only within the digital domain, we note that

our reviewing court has determined: “[u]nless the steps of a method actually recite an order, the steps are not ordinarily construed to require one.” Interactive Gift Express, Inc. v. Compuserve Inc., 256 F.3d 1323, 1342-43, 59 USPQ2d 1401, 1416 (Fed. Cir. 2001), citing Loral Fairchild Corp. v. Sony Corp., 181 F.3d 1313, 1322, 50 USPQ2d 1865, 1870 (Fed. Cir. 1999) (stating that “not every process claim is limited to the performance of its steps in the order written.”). In the instant case, we conclude that the language of representative claim 1 does not require the steps to be performed in a specific order. Therefore, we agree that representative claim 1 broadly but reasonably reads on the reference in the manner asserted by the examiner. Accordingly, we find that Knox teaches all that is claimed with respect to representative claim 1.

With respect to appellant’s argument that Knox fails to provide an enabling disclosure, we note that all United States Patents are presumed valid (and thus are presumed fully enabled under 35 U.S.C. § 112, first paragraph). See 35 U.S.C. § 282. We further note that appellant has failed to point out any specific details regarding the alleged defective disclosure.

We note that appellant has not presented any substantive arguments directed separately to the patentability of dependent claims 2, 3 and 5-8. In the absence of a separate argument with respect to the dependent claims, those claims stand or

fall with the representative independent claim. See In re Young, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991). See also 37 CFR § 41.37(c)(1)(vii)(2004). Therefore, we will sustain the examiner's rejection of these claims for the same reasons discussed supra with respect to representative claim 1.

OBVIOUSNESS REJECTION

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). The examiner must articulate reasons for the examiner's decision. In re Lee, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). In particular, the examiner must show that there is a teaching, motivation, or suggestion of a motivation to combine references relied on as evidence of obviousness. Id. at 1343, 61 USPQ2d at 1433-34. The examiner cannot simply reach conclusions based on the examiner's own understanding or experience - or on his or her assessment of what would be basic knowledge or common sense. Rather, the examiner must point to some concrete

evidence in the record in support of these findings. In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). Thus the examiner must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the examiner's conclusion. However, a suggestion, teaching, or motivation to combine the relevant prior art teachings does not have to be found explicitly in the prior art, as the teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references. The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art. In re Kahn, 441 F.3d 977, 987-88, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006) citing In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000). See also In re Thrift, 298 F. 3d 1357, 1363, 63 USPQ2d 2002, 2008 (Fed. Cir. 2002). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative

persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

Claim 9

We consider next the examiner's rejection of claim 9 as being unpatentable over the teachings of Knox in view of the examiner's taking of "Official Notice" that it is notoriously well known in the art that non-video data or information would be included in the vertical blanking interval of the video signal [see answer, page 6].

Appellant acknowledges that Knox discloses a method and apparatus for generating an OSD message by constructing an OSD bitstream defining a single field of OSD data [brief, page 17]. However, appellant argues that Knox neither discloses nor suggests the recited steps of:

1. providing an information signal usually included in a blanking interval of an analog signal to an OSD generator;
2. formatting the information signal as OSD data;
3. inserting the OSD data into the video signal;

4. providing the analog signal including the information signal formatted as OSD data to an external device.

With respect to argued step (1), we note that we have found supra that Knox discloses providing an information signal usually included in a blanking interval of an analog signal (i.e., a closed captioned information signal) [see discussion of claim 1]. We further find that such a closed captioned information signal (col. 3, line 53) is provided (as a digital bitstream) by processor 130 (in association with memory 140) to OSD unit 150 [see Knox, col. 3, lines 45-67, cont'd col. 4, lines 1-37]. Therefore, we conclude that the language of the claim broadly but reasonably reads on the Knox reference.

With respect to argued step (2), we find that Knox's OSD unit 150 and processor 130 "format the information signal as OSD data," as claimed [see fig. 1; see also discussion col. 4, lines 1 and 2 and particularly col. 4, line 41-44: "For example, the OSD header can be read from memory as the processor is formatting the OSD data, or the OSD data can be processed and displayed as OSD messages by the OSD unit without having to retrieve the entire OSD bitstream," emphasis added]. We again note that Knox explicitly discloses that "the OSD bit map may

contain information relating to Closed Captioning ...” [col. 3, lines 52 and 53, emphasis added].

With respect to argued step (3), we note that the examiner has taken “Official Notice” that it was notoriously well known in the art to insert OSD data into an analog video signal [see answer, page 8]. While we agree with the examiner’s taking of “Official Notice” (see further discussion infra), we find that Knox nevertheless clearly discloses inserting the OSD data into the video signal, this occurring within mixer 170 [as shown in fig 1. and discussed at col. 4, lines 45-55]. In particular, we note that the broad language of the claim (i.e., “inserting the OSD data into the video signal”) does not preclude this step from being performed in the digital domain, as clearly shown within fig. 1. We also note that the language of method claim 9 does not require the steps to be performed in a specific order. See Interactive Gift Express, Inc., 256 F.3d at 1342-43, 59 USPQ2d at 1416 (internal citation omitted).

With respect to argued step (4), we find that Knox’s DAC 185 provides an analog signal including the information signal formatted as OSD data to an external device, as claimed, where the external device is display 190 [Knox, fig. 1; see also discussion of claim 1, supra].

Appellant restates the argument that Knox fails to provide a 35 U.S.C. § 112 enabling disclosure [brief, page 17]. We note that we have fully addressed this point of argument supra [see discussion of claim 1].

Appellant further argues that the examiner has impermissibly relied upon hindsight in formulating the rejection [brief, page 16].

We do not find appellant's argument persuasive that the examiner has impermissibly used hindsight in formulating the rejection. We note that we have found supra that claim 9 is unpatentable over Knox alone. However, the examiner has nevertheless provided extrinsic evidence (i.e., the patent to Ryu) that clearly shows it would have been well within the general knowledge of a person of ordinary skill in the art to insert OSD data into an analog video stream at the time of the invention [see Ryu, fig. 1, in particular, Composite Video Signal Processing Circuit 108 and OSD Generator 109 that both supply inputs to Mixing Circuit 110 that, in turn, provides an analog video output signal]. Therefore, we conclude the examiner has provided adequate extrinsic evidence to support the taking of "Official Notice" that asserts inserting OSD data into an analog video signal is notoriously well known in the art.

For at least the aforementioned reasons, we find that the examiner has met his/her burden of establishing a prima facie case of obviousness. Accordingly, we

In summary, we have sustained the examiner's rejection of all claims on appeal. Therefore, the decision of the examiner rejecting claims 1-3 and 5-9 is affirmed.

AFFIRMED.

MAHSHID D. SAADAT
Administrative Patent Judge

ALLEN R. MACDONALD
Administrative Patent Judge

JEAN R. HOMERE
Administrative Patent Judge

9) INTERFERENCES

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Joseph S. Tripoli
Thomson Multimedia Licensing Inc.
P.O. Box 5312
Princeton, NJ 08540